RG-RAP1200(F)

Dual-Band FE Wall Plate AP

Datasheet

V1.0

C o n t e n t s

INNOVATION
Beyond Networks

1 Product Photos

Figure 1-1 RG-RAP1200(F)

2 Product Overview

Ruijie Reyee Series RG-RAP1200(F) dual-band FE wall plate AP is a high-performance wall plate AP for indoor small-scale Wi-Fi coverage scenarios. With 802.3af/at PoE support, the AP provides a LAN port at the front to facilitate the expansion of IPTV, IP phone, etc. Compliant with 802.11a/b/g/n/ac Wave1/Wave2 Wi-Fi protocol, the AP supports MU-MIMO dual-stream technology and offers built-in omnidirectional antennas. It can operate concurrently at 2.4GHz and 5GHz, providing high-speed wireless access of 400Mbps at 2.4GHz, 867Mbps at 5GHz and up to 1267Mbps per AP. Its compact 86mm wall plate installation design facilitates quick installation directly into a standard 86mm wall junction box, which is an ideal choice for deployment in small-scale Internet access scenarios such as offices, commercial industry, hotels, service scenarios, etc.

The AP supports Ruijie's self-developed smart networking feature*, which breaks through the product limitations and realizes auto-discovery, auto-networking and auto-configuration between gateways, switches, and wireless APs without the need for controllers or Internet access. With the mobile app, users can quickly complete the device deployment and configuration, remote management, operation and maintenance of the entire network, which greatly reduces the investment of equipment cost, labor cost and time cost in the process of wireless network construction.

Users can perform comprehensive local management or remote management of the equipment in the entire network via the mobile app, equipment EWEB management, MACC cloud platform, etc. Users can also share the network to third party for network hosting and collaborative management, thereby achieving simpler, easier to use, more secure and convenient enterprise network operation and maintenance.

* Note: For device models and versions that support the smart networking feature, please consult Ruijie customer service or the distributors.

3 Product Features

High-speed dual-band Wi-Fi

The device supports 2.4GHz and 5GHz dual-band communication, providing access rate of 400Mbps at 2.4GHz, 867Mbps at 5GHz and up to 1267Mbps per AP. It can provide 5GHz frequency band with less interference, wider channel, and faster speed for the terminals, allowing the users to enjoy excellent wireless experience.

Support routing and AP mode

The device supports both AP and routing mode. A wireless network can be formed with multiple APs, or it can be used as a wireless router when deployed independently. The device offers more flexible configurations, more abundant application features, and more extensive applicable scenarios.

Support Layer 3 networking

The device supports Layer 3 roaming for the complex Layer 3 network. When users move across the Layer 3 networks, seamless roaming can be achieved without service interruption.

Stronger and more stable signals

An aluminum alloy antenna reflector is added to reflect interference signals and focus effective signals so as to provide stronger signal transmission and better receiving sensitivity.

The device uses FBAR to filter out all kinds of interferences caused by the operator's base stations, microwave ovens, Bluetooth devices, etc., so as to provide cleaner wireless signals, higher transmission rate and more stable transmission quality.

Robust casing

With the robust and flame-retardant material of the AP casing, the impact resistance is 5

times higher than that of common ABS plastic materials. The tensile and flexural strengths are increased by 30%, which is not easy to damage. Users can rest assured during usage and maintenance.

Simple installation

The 86mm wall plate installation design facilitates quick installation directly into a standard 86mm wall junction box, without requiring any additional mounting bracket.

4 Management Features

Multi-end management

The AP supports management via Reyee app, MACC cloud platform, equipment EWEB management, and WeChat to achieve multi-end local and remote management on PC, Reyee app, and WeChat.

Fast and smart configuration

In large-scale complex networks, the configuration of the entire network can be completed by connecting to a single gateway device. There is no need to configure the devices separately, which can greatly reduce the device configuration time.

Scenario-based configuration

Scenario-based configurations can be performed via the web and Reyee app, which can greatly reduce the configuration threshold of complex functions, such as visitor isolation solution, flow control solution, etc. Even novices can easily fulfill the diverse and complex requirements of the customers.

Visualized operation and maintenance

The cloud computing network topology can comprehensively present the equipment operating status of the entire network. Through the rich information in the topology, you can quickly get the full picture of the network (network egress status, link status, device status), and quantify the user experience and network quality, so that users can master the information of the entire network.

Remote collaborative management

Users can perform comprehensive remote operation, management, and maintenance of the equipment in the entire network via the mobile app, MACC cloud platform, etc. They can

also share the network to third party for network hosting and collaborative management to operate and maintain the enterprise network more efficiently.

AI & big data network optimization

Through artificial intelligence and cloud big data, the AP can perform comprehensive smart network operation, maintenance and optimization, including but not limited to:

1. Automatic identification of new equipment and adding it into the network, automatic system repair such as avoiding conflict of the WAN IP addresses

2. Smart system optimization such as service-based network policy configuration, RF channel and roaming adjustment

3. Diagnosis and repair suggestions for more than 30 common network anomalies including DHCP conflicts, abnormal negotiation rates, excessive traffic, AP disconnection and device interference.
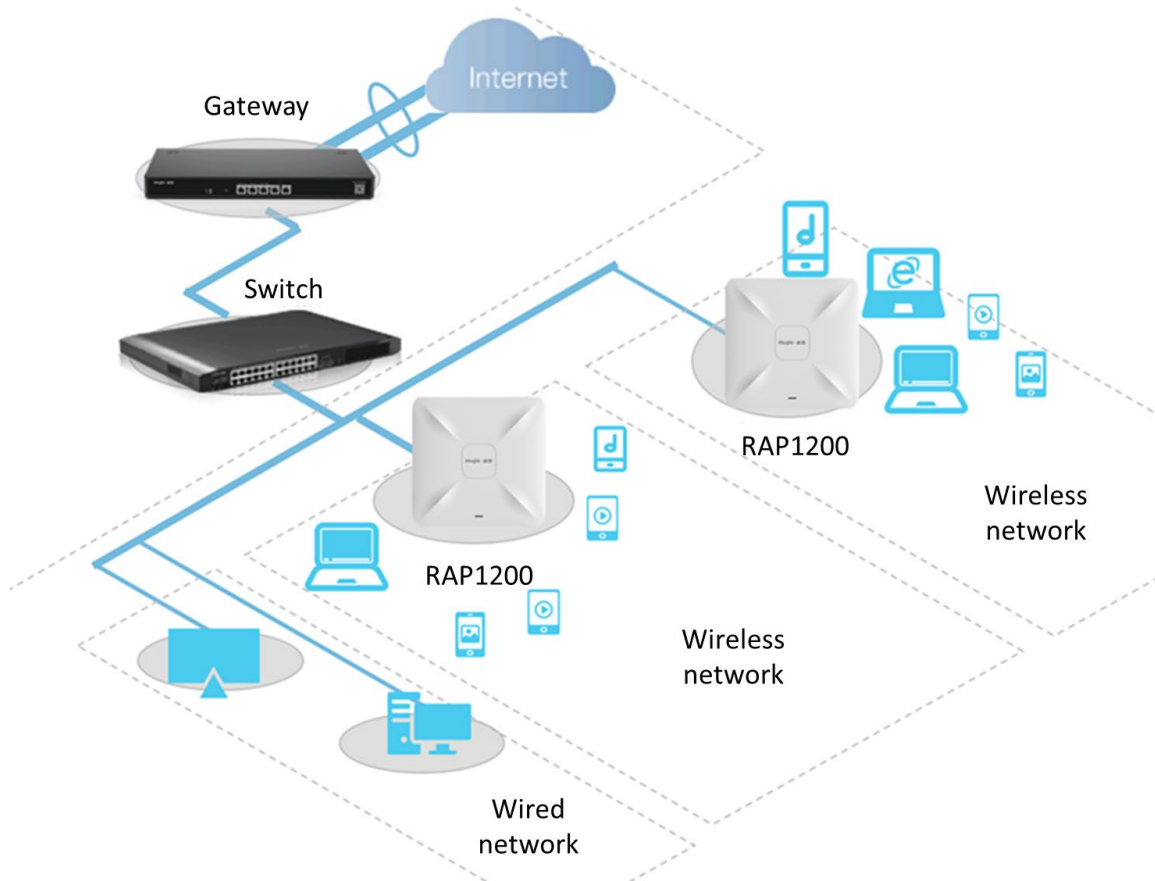
5 Technical Specifications

Hardware specifications	
Radio	Dual-stream dual-band
Protocol	Concurrent 802.11b/g/n/ac
Operating Bands	802.11b/g/n：2.4G～2.4835GHz 802.11a/n/ac： 5G：5.150～5.350GHz，5.47～5.725，5.725～5.850GHz (Note: The operating bands vary according to different countries)
Antenna	PCB antenna
Spatial Streams	2.4G: 2 Spatial Streams,2x2 MIMO 5G: 2 Spatial Streams,2x2 MIMO
Max Throughput	2.4G: up to 400Mbps 5G: up to 866.7Mbps
Modulation	OFDM: BPSK@6/9Mbps, QPSK@12/18Mbps, 16-QAM@24Mbps, 64-QAM@48/54Mbps DSSS: DBPSK@1Mbps, DQPSK@2Mbps, and CCK@5.5/11Mbps MIMO-OFDM: BPSK, QPSK, 16QAM, 64QAM and 256QAM
Receive Sensitivity	11b：-97dBm(1Mbps)，-92dBm(5Mbps)，-89dBm(11Mbps) 11a/g: -94dBm（6Mbps），-85dBm（24Mbps），-82dBm（36Mbps），-76.5dBm（54Mbps） 11n：-93.5dBm@MCS0，-74dBm@MCS7，-74dBm@MCS15 11ac：HT20：-92.5dBm（MCS0），-68.5dBm（MCS8） 11ac：HT40：-89dBm（MCS0），-64dBm（MCS9） 11ac：HT80：-86dBm（MCS0），-60.5dBm（MCS8）
Maximum Transmit Power	20dBm (adjustable)
Adjustable Power	1dBm
Dimensions	86*86*29.3
Weight	<0.25kg
Service Ports	Front： 1 10/100Mbps Ethernet port Rear： 1 10/100Mbps PoE Ethernet port
Management Port	N/A
LED Indicator	Support
Power Supply	Support 802.3af power supply
Power Consumption	＜8W
Environment	Operating temperature: 0°C～40°C Storage temperature: -40°C～70°C Operating humidity: 5％～95％（non-condensing） Storage humidity: 5％～95％（non-condensing）

Installation	86mm wall plate installation
IP Rating	IP41
Safety Standard	GB4943, IEC 60950-1
EMC Standard	GB9254, EN301 489，EN50155：EN50121
Vibration Standard	IEC61373
Radio Standard	SRRC certification
Software Features	
Operating Mode	AP mode and routing mode
WLAN	Maximum number of clients: 110
	Recommended number of clients: 24 (8 at 2.4GHz, 16 at 5GHz)
	Up to 8 SSIDs
	Support SSID hiding
	Configuring the authentication mode, encryption mechanism, and VLAN attributes for each SSID
	SSID-based and radio-based STA limit
	Support Layer 2 user isolation
Roaming	Support Layer 2 and Layer 3 roaming
Security	Support PSK authentication
	Support static blacklist and whitelist
	Support WPA (TKIP), WPA2 (AES), and WPA-PSK data encryption
Routing	Support static IP address, DHCP, PPPoE Dial Up
Management and maintenance	Support unified networking of all network equipment
	Support local or remote management with app
	Support local management with web
	Support remote management with MACC platform
Platform management features	Automatic RF adjustment via the platform
	Unified configuration via the platform
	Unified monitoring via the platform

6 Typical Applications

RG-RAP1200(F) is an ideal choice for scenarios with simple building structure, no special obstructions, and relatively concentrated users, such as conference rooms, libraries, classrooms, bars, leisure centers, etc. The AP can be flexibly implemented according to different environments, and provides user access for up to 110 terminals per AP.

7 Ordering Information

Ordering Information		
Model	**Description**	**Remarks**
RG-RAP1200(F)	1300M dual-band FE wall plate AP, dual FE LAN ports, built-in antennas, dual-band 2.4GHz/5GHz, 802.11a/b/g/n/ac Wave1/Wave2, up to 1267Mbps access rate per AP; support AP and routing mode, Layer 3 roaming, Reyee unified networking and Reyee app management; Support PoE and local power supply (PoE module and DC adapter are sold separately)	